

## AMENDMENTS TO THE CLAIMS

Please amend claims 23, 42-43, and 45, cancel claims 46-47, and add claims 48-49 as follows:

1-22. (Cancelled)

23. (Currently Amended) A method for quantifying asymmetry of joint angles of two limbs during a movement, comprising:

determining a first set of data that comprises angles of a joint of a first limb as the first limb performs the movement;

determining a second set of data that comprises angles of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;

~~synchronizing the first set of data and the second set of data;~~

determining a plurality of data pairs, wherein each data pair includes a first angle from the first set of data and a second angle from the second set of data, and wherein the first angle occurs when the first limb performs an identifiable event, and wherein the second angle occurs when the second limb performs the identifiable event;

~~generating a cyclogram based on the synchronized data; and~~

generating a cyclogram based on the determined plurality of data pairs by treating each data pair as a point in two-dimensional space; and

determining a value of a characteristic of the generated cyclogram, wherein the value quantifies asymmetry of joint angles of the first limb and the second limb.

24. (Previously Presented) The method of claim 23 wherein the first limb is part of a first body and wherein the second limb is part of the first body.

25. (Previously Presented) The method of claim 23 wherein the first limb is part of a first body and wherein the second limb is part of a second body.

26. (Previously Presented) The method of claim 23 wherein the first limb comprises a leg.
27. (Previously Presented) The method of claim 23 wherein the first limb comprises an arm.
28. (Previously Presented) The method of claim 23 wherein the movement comprises one or more cycles.
29. (Previously Presented) The method of claim 23 wherein the characteristic of the generated cyclogram comprises an area of the generated cyclogram.
30. (Previously Presented) The method of claim 23 wherein the characteristic of the generated cyclogram comprises an orientation of the generated cyclogram.
31. (Previously Presented) The method of claim 23 wherein the characteristic of the generated cyclogram comprises a minimum moment magnitude of the generated cyclogram.
32. (Previously Presented) The method of claim 23 further comprising comparing the determined value to a value of the characteristic of a cyclogram representing a baseline movement.
33. (Previously Presented) The method of claim 32 wherein the baseline movement comprises a perfectly symmetrical movement.
- 34-41. (Cancelled)
42. (Currently Amended) A system for quantifying asymmetry of joint angles of two limbs during a movement, comprising:
- a first determination module configured to determine a first set of data that comprises angles of a joint of a first limb as the first limb performs the movement;
  - a second determination module configured to determine a second set of data that comprises angles of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;
  - ~~a synchronization module configured to synchronize the first set of data and the second set of data;~~

a data pair module configured to determine a plurality of data pairs, wherein each data pair includes a first angle from the first set of data and a second angle from the second set of data, and wherein the first angle occurs when the first limb performs an identifiable event, and wherein the second angle occurs when the second limb performs the identifiable event;  
~~a generation module configured to generate a cyclogram based on the synchronized data; and~~  
a generation module configured to generate a cyclogram based on the plurality of data pairs by treating each data pair as a point in two-dimensional space; and  
a third determination module configured to determine a value of a characteristic of the generated cyclogram, wherein the value quantifies asymmetry of joint angles of the first limb and the second limb.

43. (Currently Amended) A computer program product for quantifying asymmetry of joint angles of two limbs during a movement, including a computer readable medium, which comprises instructions to perform the following:

determining a first set of data that comprises angles of a joint of a first limb as the first limb performs the movement;  
determining a second set of data that comprises angles of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;  
~~synchronizing the first set of data and the second set of data;~~  
determining a plurality of data pairs, wherein each data pair includes a first angle from the first set of data and a second angle from the second set of data, and wherein the first angle occurs when the first limb performs an identifiable event, and wherein the second angle occurs when the second limb performs the identifiable event;  
~~generating a cyclogram based on the synchronized data; and~~  
generating a cyclogram based on the plurality of data pairs by treating each data pair as a point in two-dimensional space; and  
determining a value of a characteristic of the generated cyclogram, wherein the value quantifies asymmetry of joint angles of the first limb and the second limb.

44. (Previously Presented) The method of claim 23 wherein the joint of the second limb corresponds to the joint of the first limb.

45. (Currently Amended) The method of claim 23 wherein the ~~synchronized data~~ plurality of data pairs represents the first limb and the second limb performing their movements in phase.

46-47. (Canceled)

48. (New) The method of claim 23 wherein the identifiable event comprises a gait event.

49. (New) The method of claim 23 wherein the identifiable event comprises a heel touchdown.